AMENDMENT TO THE SPECIFICATION:

Page 1, second paragraph under the title:

A method having the aforesaid features is known from DE 197 41 329 C1, wherein ~~197 41 329 C1. In said method,~~ instantaneous plasma intensities are measured parallel to ~~the~~ an axis of ~~the~~ an induced radiation at at least two measuring points. The measured plasma intensities are assigned to predetermined capillary geometry variables, i.e., for example, the depth of the vapor capillary, and control of the materials processing operation takes place as a function of these capillary geometry variables. This method utilizes a direct correlation between the observed plasma intensity and the formation of the vapor capillary to eliminate process errors by improved direct process monitoring. It has now been ascertained that ~~said~~ this method is not applicable if the depth of the vapor capillary is comparable to its width. The analyzable relationship between plasma intensity and depth of penetration is no longer present.

Page 8, last paragraph:

The foregoing can be summarized as follows. It is essential to perform an analysis of instantaneous plasma

intensities in three spatial regions 10, 11, 12 that are to be differentiated. Either these regions occur as clearly separate from one another, or one of the regions is completely absent. The shape and the relative position of each of these spatial regions having predetermined intensity values can be used to determine nearly all of the cited processing characteristics during the processing operation. The plane of observation is defined by locations at which light-sensitive pixels, for example a CCD camera, are arranged. Present within the plane of observation are spatially distributed intensity values: two maxima and a relative minimum. These extreme values lie approximately on ~~a~~ the straight line 13 that may be inclined relative to the feed direction 14. Assigned to each extreme value is a spatially extensive region that contains ~~said~~ the extreme value. The absolute maximum is always in the first region 10, which is always disposed forward of the laser beam axis 20 in the feed direction. The second maximum is located in the second region 12, which always trails behind the laser beam axis 20. When the relative minimum occurs, it is always in the dark third region 11 between the other two~~.~~ regions 10, 12.